7.   (New) The method of claim 6, wherein the act A) includes an act of:

essentially replacing the first portion of the echoed second outgoing signal with the estimation of the first portion of the echoed first outgoing symbol.

8.   (New) The method of claim 7, wherein each of the first and second outgoing symbols includes a cyclic prefix.

9.   (New) The method of claim 6, wherein the first portion of the echoed second outgoing signal and the first portion of the echoed first outgoing symbol have a same length that is less than or equal to a maximum delay between transmitted and received symbols.

10.   (New) The method of claim 9, wherein:

each of the first outgoing symbol and the second outgoing symbol has a same total length; and

the length of the first portion of the echoed second outgoing signal and the first portion of the echoed first outgoing symbol does not exceed 5% of the total length.

11.   (New) The method of claim 6, wherein the act A) comprises acts of:

A1) obtaining a difference between a first portion of the first outgoing symbol and a first portion of the second outgoing symbol;

A2) applying an estimated transfer function of echo generation to the difference to generate an echo compensation signal; and

A3) adding the echo compensation signal to at least the first portion of the echoed second outgoing symbol.

12.   (New) The method of claim 11, wherein the act A1) includes an act of:

applying a one symbol delay to at least the first and second outgoing symbols.

13.   (New) The method of claim 12, wherein the act A2) includes an act of:

passing the difference through a finite impulse response filter having the estimated transfer function of the echo generation.

14.   (New) The method of claim 12, wherein the act A2) includes an act of:

calculating the estimated transfer function based at least on a plurality of outgoing symbols and a plurality of incoming symbols.

15.   (New) The method of claim 14, wherein each outgoing symbol and each incoming symbol has a total symbol length, and wherein the act of calculating the estimated transfer function includes an act of:

calculating the estimated transfer function based only on a portion of the total symbol length.

16.   (New) The method of claim 15, wherein the act of calculating the estimated transfer function includes an act of calculating the estimated transfer function based on approximately 5% of a total number of samples of each symbol.

17.   (New) In a digital subscriber line (DSL) transmission system in which at least a first outgoing symbol and a second outgoing symbol are successively transmitted, and an echoed first outgoing symbol and an echoed second outgoing signal are successively received, an apparatus, comprising:

at least one controller configured to compensate at least a first portion of the echoed second outgoing signal based on an estimation of a first portion of the echoed first outgoing symbol.

18.   (New) The apparatus of claim 17, wherein the at least one controller further is configured to essentially replace the first portion of the echoed second outgoing signal with the estimation of the first portion of the echoed first outgoing symbol.

19.   (New) The apparatus of claim 17, wherein each of the first and second outgoing symbols includes a cyclic prefix.

20.   (New) The apparatus of claim 17, wherein the first portion of the echoed second outgoing signal and the first portion of the echoed first outgoing symbol have a same length that is less than or equal to a maximum delay between transmitted and received symbols.

21.   (New) The apparatus of claim 20, wherein:

each of the first outgoing symbol and the second outgoing symbol has a same total length; and

the length of the first portion of the echoed second outgoing signal and the first portion of the echoed first outgoing symbol does not exceed 5% of the total length.

22.   (New) The apparatus of claim 17, wherein the at least one controller further is configured to:

obtain a difference between a first portion of the first outgoing symbol and a first portion of the second outgoing symbol;

apply an estimated transfer function of echo generation to the difference to generate an echo compensation signal; and

add the echo compensation signal to at least the first portion of the echoed second outgoing symbol.

23.   (New) The apparatus of claim 22, wherein the at least one controller includes at least one delay unit configured to apply a one symbol delay to at least the first and second outgoing symbols.

24.   (New) The apparatus of claim 23, wherein the at least one controller further includes a finite impulse response filter, coupled to the at least one delay unit and having the estimated transfer function of the echo generation, to process the difference.

25.   (New) The apparatus of claim 24, wherein the at least one controller further includes at least one calculating unit configured to calculate the estimated transfer function based at least on a plurality of outgoing symbols and a plurality of incoming symbols.

26.   (New) The apparatus of claim 25, wherein each outgoing symbol and each incoming symbol has a total symbol length, and wherein the at least one calculating unit is configured to calculate the estimated transfer function based only on a portion of the total symbol length.

27.   (New) The apparatus of claim 26, wherein the at least one calculating unit is configured to calculate the estimated transfer function based on approximately 5% of a total number of samples of each symbol.